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CAFTA, Agriculture and Poverty Reduction in Guatemala- Opportunities, Problems & Policies

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Executive Summary

CAFTA is potentially a major step on the road to globalization with immense benefits to the economy of Guatemala, generally, and to the low-income rural people of Guatemala specifically. However, those benefits, and particularly those for the low-income rural people, do not flow automatically. They flow only if major specific steps are taken to institutionalize constant improvement of rural physical infrastructure, the institutions that bring constant cost reductions through technological change, and other structural changes. That is particularly true of the smallholder agriculture sector, at once a major beneficiary of expanded trade and in need of critical public goods. The global economy provides immense rewards, but it is dynamic. All those who can constantly adapt will prosper. Those who stagnate will slowly lose.

The low-income people of Guatemala are largely rural with a concentration located in the high population density, highly productive agricultural area of the Altiplano. The income of the poor is derived much more from the rural non-farm sector than directly from agriculture. However, agriculture is the basic source of demand for the goods and services produced in the rural non-farm sector. Thus, achieving rapid growth in farm incomes is the key not only to overall growth in rural areas, but also more specifically to growth in employment and hence in the incomes of the poor. Very large farms, often with absentee owners, have little effect on poverty reduction because their increased farm income is rarely spent in the rural areas, being spent much more often on import and capital-intensive goods and services.

Since it is farm income that matters to poverty reduction, it is appropriate to concentrate on those smallholders who are most receptive to changes that will increase earnings. They will tend to be the medium sized smallholders.

There are two critical requisites to long-term success in the global economy – constantly improving infrastructure and technology. That is even truer of agriculture with its land constraint than it is of industry. The Altiplano is a logical area of priority for taking advantage of CAFTA to increase farm incomes and reduce poverty. The Altiplano has a major share of the rural poor, it has high population densities that reduce the cost per family of providing physical infrastructure, and it has soils and climate well suited to intensification and response to improved technology. That is not to say that other areas lack low-income people or should be neglected. The point is that the Altiplano offers the easiest-to-grasp opportunity for large-scale poverty reduction. It makes sense to start with the easier problems.

Modest improvements in subsistence agriculture are in themselves desirable but cannot be the basis for the large increases in farm income essential to rapid reduction of poverty. What are critical are commercialization, the concentration on high value products (that are also labor intensive), and the taking advantage of modern research and declining transport and energy costs. The Altiplano has three major opportunities for large increases in farm incomes: coffee, horticulture, and livestock.

First, global markets are shifting towards high-value coffee. Even though smallholders at higher elevations are already getting higher yields and higher quality than large-scale producers, they must organize to ensure market access and to reduce technology costs and to improve high quality. In addition, major promotion efforts are needed for Guatemalan high-quality coffee. Massive infrastructure investments are also needed. Market conditions are ripe for this sector to grow rapidly and to become a much larger share of total coffee production. However, as stated below, large expenditure of public funds is required.

Second, horticulture is well suited to large-scale expansion in much of the Altiplano. Such growth requires farmers to organize for quality and for cost reduction. Horticulture requires technology investments so that Guatemala does not fall into the trap of flitting from one niche market to another as competing producers with access to improving technology move in. Large-scale investment in physical infrastructure is needed.

Third, livestock production by smallholders for the domestic market can be greatly facilitated by low-cost imported feed ingredients. Smallholders are efficient livestock producers the world over if they are supported by good physical infrastructure, constantly improving technology suited to their conditions, ample and competitively priced finance of investment by farmers and by processors. All these systems are in dismal shape in Guatemala. Large public expenditure is needed for the public goods that support private investment. Already, pockets of success have shown what can be done. In the short run, rapid growth can be accommodated by import displacement; in the long run, rapid growth in incomes will sustain a steady 6 to 8 percent growth rate.

Smallholder agriculture is innately highly efficient in production – smallholders potentially get higher yields and produce higher quality than large farmers. But they cannot provide for themselves critical inputs that have scale economies – physical infrastructure, research and technology education, and market promotion of their products. Without these support services, smallholder farmers have low productivity and appear inefficient. Private sector suppliers of inputs and marketing of output are unlikely to provide these public goods to farmers because they cannot be sure they will benefit from that expenditure compared to their competitors who did not undertake such expenditures. Thus public expenditure is essential to high productivity smallholder agriculture.

Thus, if Guatemala is to benefit from the huge opportunities that CAFTA presents to the small farmers who drive poverty reduction, priorities must be set for large public expenditure in the critical support areas of physical infrastructure, technology generation and dissemination, and organization of farmers to facilitate service delivery. There is also value in certain public goods supporting private marketing firms such as information systems.

Government funding need not entail government administration. While rural all-weather roads will probably continue in the public sector, albeit with increasing local government participation in planning and financing, public funds for technology-related activities and organizational activities could be managed by the private sector with appropriate public sector monitoring.

CAFTA offers a major opportunity to increase incomes and reduce poverty. It will not do so without concentrated public sector financing and careful and efficient administration of those funds, either in the private or public sectors. It does not appear that those essential actions are underway.

At present there does not seem to be a clear narrowly prioritized action plan for the Altiplano as the number one opportunity for poverty reduction; such a plan would provide most of the area with productive physical infrastructure and would generate technology over the next 10 years.

Macro policy must also be favorable for smallholders to benefit from CAFTA. At present, credit is constrained in supply and very expensive by the standards of major competitors. This situation may be the result of a very low-level of taxation and hence a tendency to run a tight central bank policy as an offset to deficit spending. Such an approach is detrimental to the potential beneficiaries of CAFTA. It is also essential that an exchange rate regime be run that keeps the exchange rate competitive for exports and does not give undue advantage to imports.

Trade within Central America offers much potential for intensive smallholder production as well. Horticulture can increase greatly to serve areas lacking Guatemala's specific resource base. For these benefits to accrue from the general changes from CAFTA, never-ending negotiations are required, negotiations that include focusing on reducing barriers to movements across national boundaries.

Foreign aid can be useful not only in assisting in foreign direct investment flows with their valuable accompaniment of technical know-how, but also in speeding the supply of critical public goods, particularly in the agricultural sector. Those emphases would usefully include: technical assistance to the negotiating processes, including training; assistance in development of an integrated, high priority, time-bound plan for development of the Altiplano in the context of opening trade and benefiting the poor; and assistance in achieving the potentials in smallholder production of high quality coffee, horticulture and livestock. Such efforts would emphasize the public-private sector interactions, including the potential for the private sector to provide critical public goods with public financing, and to provide the means of accelerating key improvements in policy and technology, infrastructure, and finance access.

CAFTA, AGRICULTURE, AND POVERTY REDUCTION IN GUATEMALA – Opportunities, Problems, Policies

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Without question, Guatemala's poor and its agriculture can benefit immensely from CAFTA. The questions are, however, whether the trade impact will be negligible or substantial and whether the trade elements most advantageous to agriculture and to the poor will be pursued. The issues have to do with the policies that must precede and accompany CAFTA.

The benefits from CAFTA do not come automatically. They depend very much on having policies that can take advantage of CAFTA. Further, some trade facilitated by CAFTA will disproportionately benefit the poor, namely, the trade that benefits the incipient commercial smallholder farmers who are heavily concentrated in the Altiplano. Most important are the policies to facilitate smallholder production of export quality horticulture, high quality coffee, and livestock, livestock that will be largely for the domestic market but that can benefit from lower cost feed and the import of processing equipment.

Opening trade increases production of commodities in which a country has comparative advantage. For Guatemala that will be labor-intensive commodities and particularly labor-intensive agricultural commodities. Labor is the source of income for the poor, and the poor are largely in rural areas. Unfortunately, while simply removing artificial trade barriers through CAFTA does open greater opportunities that benefit the poor, continuous effort to improve structural conditions is essential to realizing those opportunities. Because of the special opportunities for agricultural trade and the dominance of rural activity in reducing poverty in Guatemala, this paper concentrates on the impact of CAFTA on agriculture and particularly on smallholder agriculture, and on the Altiplano with its high densities of poor people. Brief comment will also be made with respect to manufacturing generally and garments specifically.

What Do Ten Years of Mexican Experience with NAFTA Suggest About CAFTA?

Agricultural exports from Mexico have grown rapidly under NAFTA (Commerce 2002), but this fact may be misleading because Mexico's agricultural exports to the US were growing rapidly for several years prior to NAFTA (Yunez-Naunde 2002). In fact, only a very modest increase in that growth rate occurred after implementation of NAFTA. Horticultural products comprised a major portion of the growth in agricultural and total exports. Compared to Guatemala, Mexico has many advantages in accelerating growth in horticultural exports. Essential institutional and physical infrastructures were being built over a long period of time and are much more advanced than in Guatemala. That construction reinforces a natural advantage of cheap, quick overland transport. That latter disadvantage remains with Guatemala, but others can be changed by appropriate policy and investment.

Much of Mexico's horticultural production, particularly that benefiting from increased exports to the US, occurs in the large farm irrigated areas of the north. The transition to meeting the demanding export markets from less demanding domestic markets is much easier for the large-scale farms. However, the benefits to the poor from large scale agriculture are much less than from smallholder agriculture (see "A Digression on Poverty Reduction" below). Thus the benefits to the Mexican poor from NAFTA have been modest (Jordan and Sullivan 2003). Guatemala has greater potential for benefit to the poor than Mexico, but to realize the potential will require explicit facilitating measures. Guatemala is better placed for the poor to benefit from CAFTA than was Mexico from NAFTA, but for the advantage to be realized requires more complex institutional development than was required for Mexico. Most important is massive organization of small farmers into associations for ensuring volume and quality deliveries to private export marketing firms.

Changes in negotiating practices have been one advantage of NAFTA. Trade is always highly political because of the structural changes it demands, with losers as well as winners. The result is constant negotiating about trade practices. Benefiting from even apparently open trade regimes requires constant negotiating, negotiating skills, and institutional capacity. A major, somewhat hidden benefit of NAFTA is the elimination of much of the area of negotiation. Consequently, Mexico's limited negotiating resources could be concentrated on a few key areas, providing enhanced benefits in those important areas (Yunez-Naude 2002.) This is a major benefit from the larger agreement that will also benefit Guatemala in the context of CAFTA. Nevertheless, as pointed out below, important decisions will still have to be made as to which negotiating areas will receive priority for the limited negotiating resources. Building that negotiating capacity is receiving substantial attention in Guatemala, but the far more important investments in institutional and physical infrastructure are not receiving sufficient attention.

In Mexico, maize is the most important subsistence crop. Production in the smallholder sector was not significantly influenced by the increased imports of maize. That is not surprising since comparative advantage for subsistence farmers stays with the subsistence crop and little of that maize is marketed. The greatest impact of lower maize prices is yet to come, but the prediction that it will not impact substantially on subsistence producers should prove accurate. The literature on NAFTA does not analyze the impact of lower feed prices on the livestock sector and the relative change in comparative advantage for cereals and livestock. That issue will be analyzed below for Guatemala. If that analysis is correct, then the issues of how small livestock producers can benefit from and expand greatly in the context of CAFTA requires concentrated attention. That issue is not receiving attention at present.

For Mexico, NAFTA spotlighted transport problems and focused attention on removing transport barriers, problems that call for more investment in physical infrastructure. They also require focus on US protectionism of truck transport with its attendant impact on increased labor costs for transshipping. It is notable that transport deficiencies show up in the literature on Mexico and NAFTA, but those deficiencies are far greater in Guatemala, particularly with respect to overland routes to US markets. As a generalization, Guatemala will have to make a great many improvements in every aspect of exporting in order to get to where Mexico was at the beginning of NAFTA. The literature on Guatemala as it prepares for CAFTA is very weak in coverage of these underlying elements of export success.

Under NAFTA, US private investment in Mexico increased more than trade. Directly following NAFTA, US direct investment in food processing doubled. The US investment was complemented by large investment by Mexicans as well. Those investments brought considerable improvement in technology and management, much of which was embedded in the capital investments.

Guatemala will have greater difficulty in attracting that investment than Mexico, perhaps in part because of less availability of local capital to complement the foreign capital, but more because of a less favorable physical and institutional infrastructure. Further, the smaller size of the market in the Central American countries and poorer integration within the region will make it more difficult to attract capital. Special efforts to improve public goods complements will be needed. Further, solving border customs problems to better integrate the Central American economies will be helpful.

Nevertheless, there will be attractive opportunities for foreign direct investment. Such an investment flow will be particularly helpful in the horticultural export area, bringing not only capital but also, and far more important, technical know-how that can be observed and spread to local firms.

The lessons from NAFTA do not extend to the myriad additional problems that CAFTA faces in integrating several contiguous countries in Central America. Currently, exports to the Central American export market are almost as large as to the US market and offer opportunity for substantial growth of the most efficient producers, especially in agriculture. It is already clear that far more effort will be needed to eliminate existing very onerous bureaucratic customs barriers to free movement of goods within the region than was needed for the one border between Mexico and the US. And even the Mexican-US problem was not trivial.

The lessons to Guatemala from NAFTA are simple and clear. CAFTA will increase the returns to the structural changes that strengthen already existing comparative advantages. Those structural changes needed are far greater in Guatemala than was the case in Mexico in the pre-NAFTA period. CAFTA will offer greater opportunity for horticultural exports with the unusually large impact on poverty reduction. As for Mexico, CAFTA will reduce the areas of trade negotiation and thus allow concentration on areas of greatest impact on Guatemala's economy and on poverty reduction. Commercial corn imports will not significantly hurt the subsistence sector since only a small proportion of output is sold and hence subject to market prices. Corn imports will decrease the domestic price of maize, thereby reducing the cost of livestock production. The high transaction costs for livestock increases the profitability of livestock production for the domestic market. Again, that benefit cannot be realized without substantial changes in policies and in the provision of public goods.

Starting Where You Are

It is too often forgotten that, in development, you start where you are. The present big geographic and commodity markets will be the primary sources of aggregate growth for some time. Diagnosing (picking winners) from within what is already important is not risky. These are the commodities and markets with proven existing comparative advantage. Diagnosing scope for improvement in technology and reducing transaction costs is a low risk enterprise for these markets and commodities.

Much more difficult is picking future big winners. Of course, the private sector must be left free to experiment, invest and take risks. Sooner or later, some currently minor markets and commodities will grow rapidly, develop a substantial base, and have an important aggregate impact. From those developments will come new growth points, some of which will call for complementary public investment. In any case, many of those new enterprises will benefit from the investment in lowering transaction costs and institutions for technology advance designed for the activities with a current track record.

Three-quarters of all Guatemala's trade is with the United States and Central America (Table 1) The US portion has been increasing over time while the Central American portion has been constant. Asia, Europe, and the rest of the world (largely Latin America) are very small. For instance, Mexico, the immediate neighbor to the north, receives only 3.3 percent of Guatemala's exports – less than 7 percent of the US quantity. The immediate question is what can be done to expand further in these two large markets. Of course, myriad private sector operatives will be constantly exploring for profitable opportunities in the rest of the world, and some will pay off handsomely, but the aggregate impact cannot be large in the short to intermediate term.

Table 1: Destinations for Guatemala Exports, 2002

Country	Percent of Exports
United States	41
Central America	33
Mexico	3
Asia	6
Europe	5
Other	12
TOTAL	100

Agriculture dominates Guatemala's exports with 60 percent of the total. Coffee is 50 percent larger than sugar and bananas combined (Table 2). Textiles and clothing are small, at one-fifth the level of coffee and roughly comparable to horticulture. To the US market alone, however, apparel and clothing are 5 times as large as vegetables and fruits, and coffee is twice as large as vegetables and fruits.

Table 2: Commodity Composition of Exports, Guatemala, 2000

Commodity	Percent of total
Agriculture	60
Coffee	(21)
Sugar	(7)
Bananas	(7)
Other Primary	8
Manufacturing	32
Textiles	(2)
Clothing	(2)
TOTAL	100

Winners and Losers

Within manufacturing, the textile and garment sectors are potentially the largest gainers from opening trade. These sectors are heavily protected initially (even a partial opening is advantageous) and are relatively labor intensive, but not so much as the key benefiting sectors in agriculture. However, the value added is much less than the gross value of output. Much of the capital is foreign, with an exported return to that capital. In addition, trade rules negotiated with the United States require a significant import content, including thread from the US. Even without that requirement, imports are substantial. Important in the long run is opening the US market to entrepreneurs who search for new export potentials, some of which will prove to be large. That access is the largest long-term advantage of CAFTA, and it argues against picking winners and losers from the endless set of new possibilities – let the entrepreneurs do that. It also argues against free trade zones, in discrimination against those exports that grow naturally from other activities outside such zones
Once the long run potential for manufactured exports is seen, it must be recognized that agriculture will provide the bulk of the benefits from trade liberalization in the short and medium term. Even in the long run, substantial growth can continue in agricultural exports, although they will not dominate the growth as will be the case in the short run.

The biggest winner from CAFTA, both from trade and from foreign direct investment, is the high-value agricultural export sector, a fact that will greatly help reduce poverty.

The cereal production sector is likely to be a loser from competition with highly efficient and subsidized US maize production. That loss will, however, make a winner of the livestock sector, which is labor intensive and well suited to the smallholder sector. Also, opening trade will have little impact on the subsistence sector because little is sold and hence its income is little influenced by prices.

Sugar tends not to benefit from opening trade to the US because of the powerful political lobbies that maintain sugar protection in the US. However, CAFTA will offer opportunity to bargain somewhat greater access to the high-priced US market with consequent benefit to sugar producers. Because the impact on poverty reduction will be less than for smallholder production of other commodities, the benefits to sugar should not be at the expense of sectors that can be dominated by small commercial farmers. The coffee export sector has even less potential to gain from CAFTA since there is little protection in the US market. Unlike sugar, however, there are large potentials for improving quality and hence price as well as reducing cost of production. Hence, major efforts are required to reduce cost of production and to shift to the highest quality areas. Such a shift will also represent a shift to small commercial producers with a major impact on poverty reduction. These small holders will require substantial public goods support, and the high quality market requires major concerted effort to develop it.

Although a high proportion of current coffee production takes place on very large holdings, it does employ substantial seasonal labor. The dynamic processes discussed in this paper will eventually absorb much of that labor, but in the short run decline of the large holding coffee sector does have deleterious impact on many very poor people. One of the problems for the large holding coffee sector is the potential for imports of the lowest cost, lowest priced coffee. In the long run, the industry needs to produce and promote at least medium quality coffee, but, in the short run, consideration must be given to managing the deleterious impact of opening to low quality low priced coffee. There is a similar subtle problem in the poultry sector in which imports of very low priced legs and wings can impact on the industry which could compete in compensating export of the higher priced breasts but may be denied admission on phyto-sanitary grounds. These are asides to the issue of the impact of CAFTA on the poor, but they illustrate the extreme complexity of trade negotiations and the need for highly trained negotiators who interact closely with the private sector.

Of course, labor is a winner, and, all else being equal, the returns to capital would be reduced modestly as a result of capital inflows. The capital inflows should, however, result in increased productivity so that, on net, the returns to capital could also increase.

A Digression on Poverty Reduction

Particularly for Guatemala, CAFTA offers huge potentials for poverty reduction. However, those potentials are based on small commercial farmers becoming a major factor in the export market, and that change requires major provision of public goods. The complex relation between agricultural growth and poverty reduction must be understood if the poverty reduction benefits are to be realized. Those benefits do not flow automatically. In Guatemala, a laissez faire approach will result in their not being realized, and so the need for specific policies must be understood and acted upon. Such action requires significant structural change.

Agricultural growth reduces poverty in small part because increased agricultural production requires additional labor and because some labor is used in providing inputs and marketing output. Rapid agricultural growth is achieved through productivity increasing technology, and technology increases labor requirement far less than output. Similarly, inputs and some processing tend to be relatively capital intensive. Thus, the bulk of the increase in employment occurs through increased consumption expenditure by prospering small commercial farmers for locally produced, non-tradable (not exportable), labor intensive goods and services. Such consumption expenditure accounts for 50-75 percent of the total impact on employment from accelerated agricultural growth. Smallholder farmers spend the bulk of additional income on rural non-farm, non-tradable goods and services.

Unfortunately, when land is concentrated in the hands of wealthy persons, particularly if they are absentee landowners, there is little effect of consumption expenditure on employment. Wealthy landowners spend much on imports. Thus, it is the indirect effects of rising incomes of small commercial farmers that will account for most of the poverty reduction in Guatemala. Of course, over the long run growth in relatively labor-intensive industries such as garments will have an aggregate impact, and even in the short run it will be significant. But these industries are far more capital intensive than the rural non-farm sector and initially much smaller as well.

A high agricultural growth rate of about 5 percent results in rapid poverty reduction in Guatemala if that growth is concentrated in the smallholder areas, e.g., the Altiplano. Such a high growth rate cannot be achieved alone; it requires rapid growth in exports and increases in horticulture, high quality coffee, and livestock. Initially, the domestic market is not growing fast enough to create such growth rates in agriculture. CAFTA will help to open export markets, especially for horticulture, and should help with technological improvement of the sector through foreign direct investment.

(For a full explanation of these relationships between smallholder growth in agriculture and poverty reduction, see Mellor 2000, 1992, 1976; for a mathematical model demonstrating the effect see Mellor and Ranade, 2003; for an application to Guatemala see Mellor 2000.)

A Digression on Gains from Trade

Gains from trade come from two factors: (1) increased specialization that provides the advantages of scale economies and (2) closer tuning of production to differences in factor proportions and to natural resources. Trade is increasing rapidly on a worldwide basis. That increase is driven by technology that constantly reduces transaction costs. Concurrently, the cost of production-reducing technology is changing rapidly and is spreading throughout the world.

These trends have important lessons. Countries and regions that are not constantly reducing transaction costs and applying cost reducing technology will find that their comparative advantage in product after product is lost. Eventually the residual position of low-income subsistence production is reached. The question is whether or not low-income countries will participate in the growth of trade given the fact that they are deficient in transportation infrastructure, deficient in market information, and deficient in capacity to develop and apply technology that reduces the cost of production reducing technology. Participating in trade is a dynamic process; changes are of little value without dynamic institutions for constantly reducing transaction and production costs.

As the largest sector in low-income countries, agriculture has immense potential to modernize in response to reduced transactions costs and improved technology. Such modernization of smallholder agriculture offers the largest benefits to poverty reduction. But public goods in both reducing transaction costs and improving technology are essential to smallholder agriculture. The long investment lead times and the need to set geographic and other priorities for expenditure of scarce capital—these two factors require picking winners and losers. Public investment in public goods is essential; there is substantial lag from investment to increased exports, and decisions must be made about commodity specific investments. Lessons must be derived from analysis of resource capabilities and the experience of analogous countries. Fortunately, Guatemala is at least partly on track with such investments. Much of this investment must be in the private sector, while the essential public sector complements must be diagnosed.

What is the lesson from Mexico? Well before NAFTA, Mexico was reducing its transaction costs and increasing its capacity to apply technology. NAFTA then facilitated the gains from trade from these underlying changes.

The lesson for Guatemala is that far more effort is needed on infrastructure investment and technology development and application. That is particularly the case for agriculture. The Mexican example, coupled with Guatemala's resource base, point to smallholder horticulture, high quality smallholder coffee, and smallholder livestock as initial foci for such investment.

What to Emphasize for Poverty Reduction

It is counter-productive to emphasize commodities that lack comparative advantage simply because they are thought to benefit the poor. However, current experience in Guatemala, the Mexican experience, and underlying trends suggest three areas that can have a major impact on poverty reduction. Each is well tested and has operational programs underway that provide the basis for massive expansion. In each case, a greatly expanded supply of public goods is critical to success of commercial smallholder production and income growth.

Horticulture

Horticultural exports provide the drama for Mexico from NAFTA and should provide the drama for Guatemala from CAFTA. The large opportunity is in the smallholder farming areas of the Altiplano with a potentially immense impact on poverty. The basic requirements for technology improvement and market orientation are underway with partnership between public goods providers and the private sector. CAFTA will increase the opportunities for payoff from these efforts, but they need to be redoubled.

Massive investment in physical infrastructure in the key areas is needed. Present horticultural export activity is largely in the few areas served by good all-weather roads. Further expansion is probably possible in such areas, but soon the area that is to be covered must be expanded on a systematic basis by a long-term (perhaps 10-year) rural road plan. Horticulture, especially for export, generally does better with irrigation. The Altiplano has substantial surface and ground water areas yet to be developed. A long-term plan for such development is needed with priority to areas with high potential for horticulture exports. Similarly, as for each of the commodity foci, reliable low cost electricity is needed.

Coffee

The coffee sector in Guatemala includes 63,000 producers and 700,000 laborers; it represents 31 percent of the rural labor force, contributes 21 percent to total exports, and represents 7 percent of agricultural output. Coffee drives home the importance of underlying forces with respect to trade as compared to specific changes in the operating rules. Coffee will have little direct benefit from CAFTA. It may even lose slightly if other exports do sufficiently well to cause relative up valuation of the currency. There is also the potential for import of low quality, low price coffee for domestic consumption. But the underlying forces of market shifts, transaction costs, and technology all are shifting strongly in Guatemala's favor as a producer of high quality coffee. Given the large initial base, new opportunities should not distract from the old opportunity in coffee. `

From the point of view of poverty reduction, Guatemala is fortunate that a high proportion of the potential for high quality coffee lies in the Altiplano, especially the higher elevations within the Altiplano and on smallholder farms, farms that should have a major impact on poverty.

Major public goods investments are needed in improving physical infrastructure, market information systems, and technology systems—all of which will facilitate private sector marketing and will promote Guatemalan high quality coffee. What is needed is well understood--vigorous implementation. As Mexico has shown – the big benefits are from ongoing efforts irrespective of the trade regime.

As with horticulture, public expenditure is needed in this area. That expenditure should almost certainly be channeled through ANACAFE that has the infrastructure for using the funds efficiently. At present, ANACAFE is largely funded by a levy on coffee production. As a result, the funds come preponderantly from the lower elevation medium quality coffee areas and largely from very large holdings. It is not likely that that funding will be shifted substantially to the new opportunities for smallholders at the higher elevations producing very high quality coffee. Seeing coffee production as a single corporate body, it is logical to shift gradually to the higher quality smallholder producers. But ANACAFE is weighted by the present composition of production. As a result, public goods investment is required.

Smallholder Livestock

Livestock production is another potential gainer from trade liberalization; the gain, however, will not be from export potentials but from the substantially reduced cost of production due to lower cost feed. Smallholder livestock may include diary, pigs, small ruminants and poultry. Large-scale poultry will be difficult, but not impossible to compete against. In the other livestock sub-sectors, the smallholder should be able to prevail. This discussion uses dairy as an example of the opportunities and the problems.

Diary production is labor intensive, well suited to labor intensive, smallholder production, and well suited to the highland areas of Guatemala. Domestic production will continue to be substantially protected by transportation costs of perishable commodities. The US has a strong comparative advantage in feed production, an advantage strongly reinforced by large subsidies to corn farmers. Thus, imported feed will have a very low cost, further increasing the comparative advantage of smallholder diary production.

Guatemala produces 90 percent of its livestock products in the smallholder sector. One-quarter of livestock consumption is imported, as is more than two-thirds of diary consumption. Nevertheless, the smallholder diary sector is backward and not growing rapidly. If it is to prosper and take advantage of cheap feed, it requires key public goods to encourage improvements in technology, breeding, feeding practices, animal health, and marketing conditions. Improved marketing includes chilling stations located near the producers. Capital scarcity and high interest rates are a major inhibition to expansion of processing and marketing as well as production. Much of this expansion should be done in the private sector, but the public sector needs to provide a set of encouraging policies, commencing with diagnosis of the needs for a rapidly growing smallholder diary sector.

In general, analysis (e.g., Castro and Hernandez 2001) finds smallholder livestock a stagnant sector. But the fact of stagnation should be separated from underlying comparative advantage and the need for public goods that are not now being provided. In addition, in all low and middle income countries, when overall growth accelerates, domestic demand for livestock products increases at a 6 to 8 percent rate. Livestock is the truly dynamic sector within agriculture. Without facilitating public policy, that market will go to imports and to large-scale domestic production that can manage without the public goods required by the smallholder sector. A major opportunity for growth and particularly for poverty reduction will be lost.

Subsistence Crops

Increasing the yields of basic subsistence crops such as corn improves the incomes of relatively poor people. However, the improvement is marginal. Such improvement is difficult: subsistence farmers do not focus clearly on improving the subsistence crop because they lack the cash resources for purchasing inputs and because non-farm income is dominant. Often the subsistence farmer has poorer resources that respond least well to improved corn varieties and increased inputs. Major reduction in poverty requires large increases in income that then increase employment and income in the rural non-farm sector. These increases will also help the subsistence farmer who already derives significant income from rural non-farm sources. It is those considerations, reinforced by the small sale percentages, that emphasize poverty reduction less in terms of corn as a subsistence crop and more in terms of lower priced corn for livestock feed to benefit small commercial livestock producers and also net purchasers of corn for food.

As an aside, even when farmers commercialize, they may still not trust markets for their basic food supply and may want to grow their own subsistence requirements. In that case, commercialization is forwarded by technology that increase corn yields, allowing self-sufficiency even while diverting more land to commercial production.

Providing Public Goods

Small commercial farmers require critical services that very large farmers can provide for themselves.

Perhaps most important is the physical infrastructure of roads, telecommunications, and electricity. Some very large farmers can actually provide those physical infrastructures for themselves. More likely, they locate their enterprises where they already exist or they use their influence to see that a limited supply of such public infrastructure is provided where they are located. But small farmers are spread out over a large area. Poverty reduction requires that a high proportion, if not all, of them be reached. Thus a large-scale program of physical infrastructure provision is required. Where population densities are high, as in the Altiplano, the cost per family is not high compared to the long run development returns. The government needs to have a plan to see that the 80 percent (as an arbitrary figure) of those people who are located on the most responsive agricultural resources receive all-weather roads, phased in, for example, over a ten-year period. No doubt development of local governments that can raise some of the resources locally and ensure efficient provision of the infrastructure can greatly speed this process.

The institutional infrastructure of farmer organization for marketing and production purposes, the research and extension systems, the rural financial institutions and so on—these are complicated problems that require public funds. Private sector firms including those marketing and exporting benefit greatly, but they cannot capture those benefits to themselves if they make those investments. Thus, public funds are essential and must have a high priority in any plan to reduce poverty.

It is not essential to expand government to provide those services. Money can be allocated to private voluntary agencies and to commercial firms to provide the services. Since the commodity priorities can be defined and are (in each case) related to commercial marketing structures, it would be reasonable to contract on an open basis, perhaps by bidding, to have such private firms receive funds to provide those services. However, many approaches to efficient provision will be conceived and the most efficient chosen, perhaps after trials with various approaches.

Macro Policy

The preceding has in general been micro and commodity specific, yet several aspects of macro policy are not only important, but also essential.

Because the priority areas all involve commercialization of small farms and all involve processing, credit availability and interest rates are of great importance. Rural credit systems, even for agro-business, are poorly developed and credit is difficult to obtain. In addition, even when credit is available, real interest rates are high by the standards of many competing countries. The credit problems may derive from efforts by the central bank to contain inflation in the context of the government's failure to raise a level of taxes consistent with those raised by competing countries. Whatever the causes, these issues require examination.

Over the past three years the difference in inflation rate between Guatemala and the United States has been on the order of 6 percent per year or an accumulation of close to 20 percent. And yet, there has been no devaluation in that period. That suggests that the currency is overvalued substantially. Such overvaluation, achieved in an ostensibly free market situation and thereby not bringing IMF concerns, is obviously very deleterious to export performance and leaves the import-susceptible sectors such as corn in a disadvantageous situation. That issue requires analysis and action.

The lack of public goods provision for the small commercial farmer has been noted frequently above. That is an issue of government fiscal policy. The level of taxes and expenditure priorities must be examined in the context of benefiting from and competing under CAFTA as well from a more general growth and poverty reduction point of view.

Interregional Trade

CAFTA is about interregional trade and as well as about trade with the United States. At present, trade with Mexico is inconsequential and trade within Central America is more important, accounting for 33 percent of total trade. CAFTA should increase that trade.

Prebisch Factors: Under the influence of Raoul Prebisch, Latin America has emphasized the stimulus to industrialization that comes from opening regional markets with the potential for some specialization and certainly for greater scale economies. We would now also emphasize the potential for increased agricultural specialization according to natural resources. With a higher proportion of highland resources than other countries in Central America, Guatemala has much to gain from increased trade in temperate latitude horticultural products. The Prebisch scale economies will be worthwhile in the processing and marketing of horticulture and should help develop the base for exports to the US.

Preparing for Larger Markets: Particularly for horticulture products, developing the scale economies and quality standards for serving the larger Central American market will assist further expansion into the North American market.

Requisites for Success

Comparative advantage is, in part, a function of initial factor proportions (abundant low cost labor in the case of Guatemala), but it is even more a function of technological development capacity and reduction of transaction costs. Globalization not only facilitates trade but it also means that low transaction costs are critical and that constantly reducing the cost of production through technological change is critical.

Preparing to Negotiate: Emphasis is already being given to increasing the government's capacity to negotiate trade agreements and to provide essential information systems. Implementation needs to proceed rapidly in the directions planned.

Technological Change: Some judgments are needed about winners from trade, diagnosis of the extent to which private sector investment will occur, and the consequent need for public sector investment in technology systems. The first priority for such diagnosis and investment must be coffee, horticulture, and livestock. Technology improvement is a never-ending task requiring long-term institutional structures and steady growth along with constant examination of the respective roles of the private and public sectors.

Infrastructure: Like technology, infrastructure improvement is a never-ending task. The first priority must go to the high quality coffee areas, then to horticulture, and finally to livestock producing areas.

What Guatemala is doing right and wrong

Guatemala has prepared well for the opening of trade through CAFTA. Substantial technical assistance and advice have been received from the WTO and other organizations, and the Government of Guatemala (GoG) has conducted a major study for CAFTA (Government of Guatemala 2002). That study provides great detail on the requisites for continued negotiations, including training and detailed information systems. Mention is made of the need for infrastructure investment and technology application.

The deficiencies, however, are substantial:

1. Although the conditions for benefiting from CAFTA are mentioned, there is not explicit recognition of how critical they are and, as a result, a lack of specificity as to what needs to be done.
2. Agriculture is hardly mentioned even though the case of Mexico and NAFTA and the experiences of low-income countries in general demonstrate that agriculture (including both traditional and non-traditional exports) represent the prime initial beneficiaries of open trading regimes.
3. Smallholder agriculture is the primary source of poverty reduction, while smallholder agriculture, particularly in horticulture, requires public goods more than any other sector. This receives little note in the Guatemalan literature on preparing for CAFTA.

A Few Words about Manufacturing Benefits from CAFTA

Manufacturing growth is important to Guatemala. Transforming the economy from its current heavy emphasis on agriculture to a more balanced relationship with industry and services is essential. In the short and intermediate run agricultural exports that must carry much of the day; in the long run, however, manufacturing and services must do so. The garment sector will be an immediate beneficiary of CAFTA, but other as-yet unknown elements of manufacturing will increasingly benefit and translate that into larger benefits in the economy. These will all help absorbed rural population growth and take some of the pressure off agriculture in the drive to reduce poverty. For all of these benefits to occur, it is important that the exchange rate not be overvalued, as it seems to be at present. There are other macro policy elements of a favorable environment. Constant improvement of physical infrastructure and the basis for technical improvement will always be important. But, for some time to come, it is agriculture that will drive the non-traditional commodity export response and poverty reduction, and it is agriculture that most requires public goods response.

A Brief Closing Note on Foreign Assistance

Foreign investment and technical assistance can both be of immense help in achieving the objective of ensuring that poverty is reduced in the context of CAFTA. The important role of foreign private investment, bringing as it does technical know-how and market access, is possibly even more valuable than the freeing of trade. Technical assistance can also be valuable. The special need of agriculture is for public goods support and recognition of the central role of non-traditional agricultural exports in the early years of benefiting from opening trade. In that context, I suggest the following priorities.

1. Training in negotiating not only the basic agreements, but also the never-ending task of following up on the initial agreement. Such training and the associated development of information systems are central to all the Government of Guatemala statements of CAFTA related needs. These needs are important even though this report rates the provision the basic ingredients of institutionalization of technical change and infrastructure improvement as even more important.

2. Assisting the GoG in a planning strategy for the Altiplano. It is not clear at the moment that the GoG recognizes how central the Altiplano is to benefiting the poor from CAFTA and how large the opportunities are. Nor does the GoG seem to recognize the critical need for a small number of priorities that are effectively implemented on a wide scale with a major aggregate impact. Ideally such an effort would have a high quality expatriate input interacting with a well-rounded, influential set of nationals.

3. Making efforts in smallholder coffee, horticulture and livestock, consistent with the above to demonstrate to the government the value of such efforts, and working with the government to ensure a widespread, macro impact. Foreign aid institutions have a strong track record in each of these areas, and, until the GoG has fully taken up the effort, those foreign aid efforts need to be continued. In that context, special attention needs to be given to:

    a. Policy needs, both sector specific and macro
    b. Organization of farmers to provide essential volume and quality and to receive technical information
    c. Technology systems in the private and public spheres and in national and international contexts

d. Interactions with and stimulation of private sector efforts in support of smallholders
e. The evolution of rural financial structures not only to supply capital but also to mobilize savings from rising incomes.

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Persons Consulted

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